

**IN THE CLAIMS:**

On the first page of the claims, first line, change "Patent Claims" to:

--WHAT IS CLAIMED IS:--.

Please cancel original claims 1 to 27, without prejudice, and please add new claims 28 to 54 as follows:

AS 005577-110100  
--28 [New] A method for fabricating a composite material, the method comprising the steps of:  
providing a parent substance containing a silicon nitride and a metal silicide, the silicon nitride being  $\text{Si}_3\text{N}_4$  and the metal silicide being of a form  $\text{Me}_5\text{Si}_3$ , where Me is a metal;

establishing, as a function of a sintering temperature, an upper limit and a lower limit of partial nitrogen pressures so that the silicon nitride is stable at the lower limit and the metal silicide is stable at the upper limit; and

gas pressure sintering the parent substance in a nitrogenous atmosphere based on the lower limit and the upper limit.

29 [New] The method of claim 28, wherein the metal of the metal silicide is selected from a metal of one of a 5th subgroup and a 6th subgroup of the periodic table.

30 [New] The method of claim 29, wherein the metal of the metal silicide is selected from the group of Mo, Nb, V, Nb, Ta and W.

31 [New] The method of claim 28, wherein a weight ratio of  $\text{Si}_3\text{N}_4:\text{Me}_5\text{Si}_3$  is between about 20:80 and about 80:20.

32 [New] The method of claim 28, wherein the parent substance includes sinter additives.

33 [New] The method of claim 32, wherein the sinter additives include at least one of aluminum oxide and yttrium oxide.

34. ~~(New)~~ The method of claim 32, wherein a concentration of the sinter additives in an initial mixture is retained at less than about 10 % by weight.

35. ~~(New)~~ The method of claim 28, wherein the parent substance includes pressing agents and binding agents.

36. ~~(New)~~ The method of claim 28, wherein the parent substance is ground into a powder.

37. ~~(New)~~ The method of claim 28, further comprising one of the following sets of steps:

(a) forming the parent substance into a desired shape by one of ceramic injection molding and cold-isostatic pressing before the step of gas pressure sintering; and

(b) (i) forming the parent substance into the desired shape by the one of the ceramic injection molding and the cold-isostatic pressing before the step of gas pressure sintering, and

(ii) forming the composite material by green processing subsequent to the step of gas pressure sintering.

38. ~~(New)~~ The method of claim 28, wherein the parent substance is cold-isostatically compressed at a pressure of between about 100 MPa and about 300 MPa.

39. ~~(New)~~ The method of claim 28, further comprising the step of pre-sintering the parent substance prior to the step of gas pressure sintering.

40. ~~(New)~~ The method of claim 39, wherein the step of pre-sintering is performed at a temperature of between about 500°C and about 700°C.

41. ~~(New)~~ The method of claim 39, wherein the step of pre-sintering is performed at a pressure of between about 0.05 MPa and about 0.2 MPa.

42. ~~(New)~~ The method of claim 28, wherein the step of gas pressure sintering is performed at a temperature of between about 1700°C and about 1900°C.

43 ~~(New)~~ The method of claim 28, wherein the step of gas pressure sintering is performed at a partial N<sub>2</sub> pressure of between about 0.5 MPa and about 1.0 MPa.

44. ~~(New)~~ The method of claim 29, wherein:

the metal of the metal silicide is molybdenum; and

the upper limit is set as an upper limit of partial N<sub>2</sub> pressures (p<sub>N2</sub>) according to a first equation of  $y_1 = 5.3071 \cdot \ln(T) - 37.014$ , and

the lower limit is set as a lower limit of the partial N<sub>2</sub> pressures (p<sub>N2</sub>) according to a second equation of  $y_2 = 7.3494 \cdot \ln(T) - 54.124$ ,

where y<sub>1</sub> and y<sub>2</sub> represent lg(p<sub>N2</sub> [bar]) values.

45 ~~(New)~~ The method of claim 29, wherein:

the metal of the metal silicide is niobium; and

the upper limit is set as an upper limit of partial N<sub>2</sub> pressures (p<sub>N2</sub>) according to a first equation of  $y_1 = 7.8968 \cdot \ln(T) - 58.8$ , and

the lower limit is set as a lower limit of the partial N<sub>2</sub> pressures (p<sub>N2</sub>) according to a second equation of  $y_2 = 8.2598 \cdot \ln(T) - 62.064$ ,

where y<sub>1</sub> and y<sub>2</sub> represent lg(p<sub>N2</sub> [bar]) values.

46 ~~(New)~~ The method of claim 28, wherein the step of gas pressure sintering is performed in a gas-pressure sintering furnace.

47 ~~(New)~~ A silicon-containing composite material comprising a silicon-containing material made of Si<sub>3</sub>N<sub>4</sub> and a metal silicide, wherein the metal silicide is selected from the group of Nb<sub>5</sub>Si<sub>3</sub>, V<sub>5</sub>Si<sub>3</sub>, Ta<sub>5</sub>Si<sub>3</sub> and W<sub>5</sub>Si<sub>3</sub>.

48 ~~(New)~~ The composite material of claim 47, wherein the metal silicide contains carbon.

49 ~~(New)~~ The composite material of claim 48, wherein the metal silicide contains carbon with a concentration specific to the composite material of about 0.3 % by weight to about 0.6 % by weight.